WHAT IS CLAIMED IS:

We claim:

1. A receiver for receiving code division multiple access (CDMA) signals and determining the location of the receiver at least in part from the CDMA signals, comprising:

an antenna for receiving transmitted CDMA signals;

a circuit for converting the frequency of the CDMA signals and digitizing the CDMA signals into in-phase and quadrature signals;

a variable length pseudorandom code generator to generate a pseudorandom code;

an early, late and true correlator to correlate the in-phase and quadrature signals with the psuedorandom code; and

a processor to compute the location of the receiver.

2. The receiver of claim 1 wherein the pseudorandom code generator generates a code that is variable in length from 128 to 32,768 bits.

3. A method for locating an object utilizing CDMA and GPS signals comprising:

receiving a GPS signals from a GPS signal transmitter at a receiver;

receiving a CDMA signal at the receiver;

digitizing the CDMA signal into in-phase and quadrature components;

locally generating a variable pseudorandom code (PN);

correlating the in-phase and quadrature components with early, true and late correlators;

multiplying the generated variable PN code with the early, true and late correlator; and

processing the product of the early, true and late correlator and the PN code to determine the receiver location.

4. The method of claim 3, wherein the length of the PN code is varied from 128 to 32,768 bits.

5. The method of claim 3, wherein the correlation is performed on the in-phase and quadrature components separately.

6. An apparatus for locating an object utilizing CDMA and GPS signals comprising:

a receiver for receiving a CDMA signal from a base station;

an antenna for receiving the CDMA signals;

an amplifier for amplifying the received signal;

a digitizer for digitizing the CDMA signal into in-phase and quadrature components;

a variable pseudo random code (PN) generator for locally generating a PN code;

a correlator for correlating the in-phase and quadrature components by early, true and late correlators;

a multiplier for multiplying the generated variable PN code with the early, true and late correlator; and

a processor for processing the product of the early, true and late correlator and the PN code to determine the location of the receiver.

7. The apparatus of claim 6, wherein the length of the PN code is varied from 128 to 32,768 bits.

8. The apparatus of claim 6, wherein the correlator performs on the in-phase and quadrature components separately.

9. The apparatus of claim 6, wherein the receiver is a variable gain receiver.

10. The apparatus of claim 9, wherein the receiver gain varied to avoid saturation of the signal.